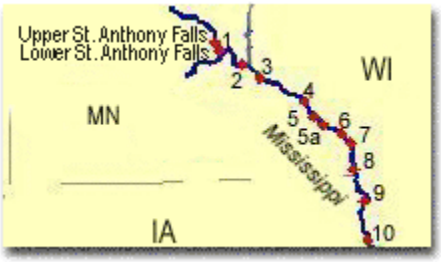
US Army Corps of Engineers
St. Paul District

Upper Mississippi River 9-Foot Project Channel Maintenance; MN, WI, IA

Location/Description

The St. Paul District is responsible for maintaining 284 miles of the Upper Mississippi River (UMR) 9-foot channel navigation system. The area of responsibility is from the head of navigation at Minneapolis, Minnesota, to Guttenberg, Iowa. It also includes the lower navigable portions of the Minnesota, St. Croix, and Black Rivers. The project is located in Minnesota, Wisconsin, and Iowa.



The UMR project is achieved primarily by a series of locks and dams, of which 13 are in the St. Paul District. Channel maintenance consists of dredging; the use of channel control structures such as wing dams, closing dams, and bank revetment; snag removal; accurate channel marking; and close monitoring of conditions.


Aerial view - Dredge THOMPSON at mouth of the Chippewa River

The District dredges an average of 900,000 cubic yards per year at approximately 37 locations. Both hydraulic and mechanical dredges are used. The Government Dredge THOMPSON is used primarily for hydraulic dredging, and contract dredges are used for mechanical dredging. Dredged material placement is extensively planned for the long term and is actively managed to maximize beneficial use of the material. Channel control structures are maintained to minimize dredging quantities without affecting natural resources.

Status

Annual operation and maintenance is required to insure safe, reliable navigation. Coordination with projectusers, other river resource agencies, and the public is crucial to a successful program. Channel maintenance policies and procedures are explained in the District’s Channel Maintenance Management Plan (CMMP). The CMMP is updated annually to document past activities and to describe current work and future plans. Operational agreements have been developed with State regulatory agencies to facilitate channel maintenance. The channel maintenance program is flexible and allows for consideration of emerging river resource management initiatives such as pool-wide water level management and long-range environmental pool plans. A drawdown of water levels is proposed for navigation pool 5 in 2005 to promote the growth of aquatic vegetation. To achieve full benefits, additional funding will be required for dredging to insure navigation during the drawdown. From 2002 to 2004, 100 percent of the material dredged was placed at beneficial use sites. Capacity at temporary placement sites is maintained by periodically excavating dredged material and transferring it to permanent locations. Excavation of the Reads Landing site in pool 4 near Wabasha, Minnesota, is scheduled to begin in late summer of 2005.

Design Awards

The St. Paul District's channel maintenance program is recognized by other river management agencies as being innovative and a national leader in planning and implementing a resource balanced program. In 1998, the District's CMMP received an Honor Award in the Chief of Engineers' Design and Environmental Awards Program. The Weaver Bottoms environmental enhancement and long-term dredged material placement site plan received the Award of Excellence in 1989.

Authority

The 9-foot channel navigation project was authorized by the Rivers and Harbors Act of 1930. It is 100 percent

federally maintained with the exception of short segments in Minneapolis and on the Minnesota River. Local sponsors are responsible for furnishing dredged material placement sites on those segments.

Fiscal

The Federal cost of channel maintenance in the St. Paul District is approximately $11 million annually.